

UNITED STATES NAVAL OBSERVATORY
CIRCULAR NO. 75

U. S. Naval Observatory, Washington 25, D. C.

May 28, 1957

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS

NOVEMBER, 1956

By Winifred Sawtell Cameron

These results are based upon measurements made at the Naval Observatory on plates secured either there or at the Mt. Wilson Observatory. The symbols used for the entries in the successive columns are as follows:

U.T., the epoch of observation in Universal Time.

No., the identifying number of the group assigned by Mt. Wilson.

Δl , the heliographic difference in longitude from the central meridian, measured positive to the west.

ϕ , the heliographic latitude, measured positive to the north.

ρ , the heliocentric angular distance from the line joining the centers of the Earth and Sun.

A , the true area of the umbra plus penumbra, expressed in millionths of the visible hemisphere.

s , the number of spots.

An asterisk means that no Mt. Wilson number was assigned. Plates secured at the Naval Observatory are indicated by N, and those at Mt. Wilson by M. The plate quality, which follows, is indicated by:

1, Poor; 2, Fair; 3, Good; 4, Very Good; 5, Excellent.

The following five quantities are listed successively at the end of each day, and give for that day:

1. The total number of groups, g .
2. The longitude of the central meridian, L_0 .
3. The latitude of the center of the disc, B_0 .
4. The total value of A .
5. The total value of s .

The mean daily area and the mean relative sunspot number, $r=10g+s$ are given at the end of the month.

These results are a continuation of those published in the *Monthly Weather Review* from February 1, 1927 to December 31, 1947.

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U. T.	No.	Δl	φ	ρ	A	s	U. T.	No.	Δl	φ	ρ	A	s	
1.736	11944	-76	-15	77	36	1	11937	-21	-16	28	6	1	1	
M-2	11944	-73	-15	75	145	4	11937	-17	-14	25	12	1	1	
	11941	-54	-26	60	267	1	11937	-15	-13	24	6	2	2	
	11943	-44	-25	52	24	1	11937	-13	-12	19	61	4	4	
	11937	-36	-14	41	12	1	11937	-13	-13	20	61	1	1	
	11937	-35	-13	39	121	1	11937	-10	-12	18	194	3	3	
	11937	-33	-14	38	12	2	11945	-15	-17	26	16	5	5	
	11937	-30	-15	35	16	1	11930	-9	+17	16	24	4	4	
	11937	-26	-12	31	73	5	11930	-8	+17	16	12	2	2	
	11937	-25	-13	29	97	3	11930	-6	+24	22	12	5	5	
	11937	-24	-12	28	242	1	11930	-5	+24	22	12	1	1	
	11936	-28	-21	36	12	1	11930	-5	+19	16	6	1	1	
	11936	-23	-21	34	16	1	11930	-4	+21	16	291	2	2	
	11936	-21	-21	32	12	1	11930	-4	+18	15	36	4	4	
	11936	-18	-23	33	24	2	11930	-3	+23	18	16	6	6	
	11936	-16	-22	29	16	1	11930	-2	+18	15	12	2	2	
	11930	-22	+18	26	16	5	11930	+1	+20	16	6	1	1	
	11930	-21	+24	28	24	3	11931	-6	-16	22	24	3	3	
	11930	-19	+21	25	48	3	11931	-4	-17	23	36	1	1	
	11930	-19	+24	26	16	2	11936	-6	-23	26	16	3	3	
	11930	-17	+24	26	12	1	11942	+8	-27	33	6	2	2	
	11930	-16	+19	23	145	5	11942	+9	-26	32	12	6	6	
	11930	-16	+22	24	388	1	11924	+52	-18	56	218	4	4	
	11930	-15	+18	22	12	2	11924	+55	-17	59	73	2	2	
	11930	-14	+23	24	12	2	11924	+56	-16	59	109	2	2	
	11930	-13	+19	20	12	5	11921	+55	-35	65	12	1	1	
	11930	-12	+20	19	12	1	11921	+55	-32	64	12	3	3	
	11931	-16	-17	26	73	1	11921	+58	-33	66	24	4	4	
	11931	-15	-16	25	12	2	11921	+61	-30	66	97	4	4	
	11942	-2	-25	29	12	1	11921	+63	-33	69	73	2	2	
	11942	-1	-28	33	16	1	11920	+68	+13	68	73	2	2	
	11942	0	-25	29	12	2	11919	+68	-29	73	24	5	5	
	11924	+38	-21	45	16	1	11918	+79	-29	81	194	1	1	
	11924	+39	-19	45	339	5								
	11924	+42	-17	47	145	1	(15)	(357)	(+4)		3128	110		
	11924	+44	-16	48	145	4								
	11921	+43	-32	54	32	3	3.731	11948	-80	+24	80	291	1	1
	11921	+43	-31	54	61	3	M-2	11949	-80	-18	80	485	1	1
	11921	+45	-33	56	85	2		11946	-75	+28	76	145	3	3
	11921	+46	-31	56	24	2		11946	-75	+30	76	73	1	1
	11921	+49	-31	58	218	6		11946	-71	+26	73	73	2	2
	11921	+51	-32	59	145	6		11946	-69	+28	71	194	2	2
	11919	+54	-29	61	24	1		11946	-67	+29	68	145	1	1
	11919	+55	-29	63	24	2		11944	-54	-16	57	109	1	1
	11919	+60	-29	66	16	2		11944	-52	-16	55	24	1	1
	11920	+55	+13	56	121	1		11944	-51	-15	54	16	1	1
	11918	+65	-29	70	133	1		11944	-48	-15	53	97	2	2
								11944	-45	-14	48	388	2	2
	(13)	(9)	(+4)		3475	104		11941	-28	-26	41	242	1	1
								11937	-11	-16	24	109	1	1
2.681	11946	-82	+26	82	121	1		11937	-10	-15	22	24	2	2
M-3	11946	-80	+27	80	388	1		11937	-7	-13	18	36	3	3
	11944	-66	-16	68	145	5		11937	-7	-17	24	32	1	1
	11944	-65	-17	68	73	5		11937	-5	-14	18	12	1	1
	11944	-61	-15	64	12	1		11937	-4	-14	18	12	1	1
	11944	-58	-14	61	339	1		11937	-3	-13	16	6	1	1
	11941	-41	-26	49	194	1		11937	0	-13	16	12	1	1
	11943	-31	-28	44	6	2		11937	+1	-12	15	61	2	2
	11937	-24	-16	32	16	1		11937	+2	-13	16	73	2	2
	11937	-22	-13	27	48	2		11937	+4	-12	16	206	2	2

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U.T.	No.	Δl	φ	ρ	A	s	U.T.	No.	Δl	φ	ρ	A	s	
		$^{\circ}$	$^{\circ}$	$^{\circ}$					$^{\circ}$	$^{\circ}$	$^{\circ}$			
	11945	0	-17	22	24	2		11931	+23	-16	30	6	1	
	11947	+4	+39	36	36	3		11942	+36	-27	46	6	2	
	11947	+7	+37	35	32	3		11950	+46	-20	52	16	1	
	11930	+4	+23	19	12	2		11950	+50	-21	55	24	1	
	11930	+5	+17	14	24	3		11924	+82	-19	82	121	1	
	11930	+8	+21	18	339	1								
	11930	+10	+23	22	6	1		(16)	(330)	(+4)		4920	90	
	11930	+11	+18	18	36	3								
	11930	+11	+20	19	32	2		5,575	11953	-85	-23	85	485	2
	11930	+13	+18	20	32	1	N-3	11953	-80	-23	80	145	1	
	11936	+6	-24	28	16	1		11953	-79	-26	81	776	4	
	11936	+9	-23	28	16	1		11953	-74	-24	77	388	1	
	11931	+7	-17	24	12	1		11953	-70	-20	74	36	1	
	11931	+8	-18	24	24	2		11948	-60	+24	62	12	1	
	11942	+23	-26	38	12	1		11948	-56	+23	57	170	3	
	11942	+24	-27	39	16	2		11949	-57	-18	61	121	4	
	11924	+66	-18	69	194	3		11949	-56	-19	60	533	3	
	11924	+69	-18	71	48	1		11946	-51	+28	54	218	11	
	11924	+70	-16	72	170	1		11946	-50	+26	54	12	1	
	11921	+72	-33	77	194	1		11946	-47	+25	51	73	2	
	11921	+80	-33	83	97	1		11946	-46	+27	50	339	14	
								11946	-44	+25	48	97	1	
	(14)	(343)	(+4)		4237	72		11946	-44	+26	49	73	5	
								11946	-43	+27	48	97	2	
4,742	11953	-85	-21	85	727	1		11956	-45	-21	51	6	1	
N-3	11948	-68	+24	69	206	3		11944	-30	-18	37	121	3	
	11949	-67	-18	70	533	3		11944	-28	-17	35	194	3	
	11946	-62	+29	64	206	8		11944	-27	-16	34	12	1	
	11946	-60	+27	62	24	1		11944	-27	-18	35	61	3	
	11946	-58	+25	60	109	4		11944	-25	-17	33	85	5	
	11946	-57	+27	60	315	4		11944	-23	-16	30	48	2	
	11946	-55	+26	58	121	1		11944	-22	-13	27	12	1	
	11946	-54	+27	57	145	2		11944	-19	-13	26	388	2	
	11946	-53	+28	55	121	1		11944	-18	-11	24	12	1	
	11944	-41	-17	46	73	2		11944	-17	-12	24	6	1	
	11944	-39	-16	44	194	6		11941	-5	-27	32	218	2	
	11944	-38	-15	43	24	3		11955	+4	+25	22	6	1	
	11944	-36	-16	41	97	4		11937	+13	-17	25	36	3	
	11944	-34	-15	39	85	2		11937	+15	-17	26	32	2	
	11944	-31	-14	35	339	3		11937	+23	-14	29	12	2	
	11941	-16	-27	35	230	1		11937	+26	-14	32	32	1	
	11937	+2	-17	22	36	3		11937	+26	-12	30	12	2	
	11937	+4	-16	21	36	3		11937	+28	-12	32	194	3	
	11937	+5	-17	24	16	2		11947	+26	+40	44	121	7	
	11937	+5	-14	19	12	1		11947	+27	+39	44	24	2	
	11937	+14	-14	24	61	1		11947	+28	+37	43	16	2	
	11937	+17	-13	24	242	2		11947	+30	+36	43	16	2	
	11952	+5	+22	18	6	2		11947	+33	+36	45	170	4	
	11945	+13	-25	32	6	1		11930	+27	+23	33	6	1	
	11945	+16	-21	29	6	1		11930	+32	+21	36	339	3	
	11947	+16	+40	39	109	3		11951	+34	-25	44	36	1	
	11947	+18	+38	38	16	1		11951	+35	-23	44	32	4	
	11947	+19	+37	38	24	1		11942	+48	-26	55	16	1	
	11947	+22	+37	39	158	4								
	11930	+18	+23	25	6	1		(13)	(319)	(+4)		5838	122	
	11930	+22	+21	26	364	1								
	11930	+23	+23	29	12	1		6,553	11958	-87	+15	87	145	2
	11951	+22	-25	36	48	4	N-2	11953	-72	-22	75	61	1	
	11951	+23	-23	35	24	2		11953	-70	-23	74	242	3	
	11951	+24	-24	36	16	1		11953	-68	-22	71	48	2	

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U.T.	No.	Δl	φ	ρ	A	s	U.T.	No.	Δl	φ	ρ	A	s
		$^{\circ}$	$^{\circ}$	$^{\circ}$					$^{\circ}$	$^{\circ}$	$^{\circ}$		
	11953	-66	-25	70	242	1		11953	-54	-22	58	73	1
	11953	-66	-24	69	315	3		11953	-52	-23	57	194	4
	11953	-65	-26	69	388	2		11953	-50	-24	56	48	2
	11953	-64	-25	69	97	3		11953	-50	-26	56	339	1
	11953	-60	-26	66	97	1		11953	-47	-23	54	606	2
	11953	-59	-23	64	630	1		11953	-46	-25	54	32	2
	11957	-50	+27	54	24	2		11957	-40	+26	45	24	2
	11957	-46	+26	50	36	2		11957	-38	+28	44	121	4
	11948	-46	+24	49	16	1		11957	-35	+26	41	36	1
	11948	-43	+24	46	73	1		11957	-34	+27	41	97	3
	11948	-42	+23	45	109	2		11957	-34	+25	39	16	2
	11949	-44	-17	49	242	1		11957	-32	+26	38	97	2
	11949	-42	-15	46	48	1		11948	-33	+24	37	73	2
	11949	-41	-19	46	533	2		11948	-31	+24	36	73	1
	11949	-40	-16	45	121	1		11948	-30	+23	35	121	1
	11946	-39	+29	45	242	1		11949	-32	-20	39	97	3
	11946	-37	+27	42	73	4		11949	-31	-17	36	291	2
	11946	-35	+25	40	73	2		11949	-29	-19	37	461	1
	11946	-34	+25	39	73	1		11949	-28	-15	34	48	3
	11946	-33	+27	39	218	4		11949	-27	-22	37	73	3
	11946	-31	+26	37	73	1		11949	-26	-16	33	145	2
	11946	-30	+27	37	194	3		11946	-26	+29	36	145	2
	11956	-30	-20	37	32	1		11946	-24	+27	33	73	4
	11944	-17	-17	27	85	1		11946	-22	+26	31	145	2
	11944	-16	-17	26	133	2		11946	-21	+28	32	170	5
	11944	-15	-16	25	97	2		11946	-20	+27	31	16	1
	11944	-13	-15	24	73	1		11946	-18	+27	30	315	4
	11944	-12	-16	24	36	1		11946	-18	+26	29	61	2
	11944	-10	-15	22	48	2		11944	- 4	-18	24	73	1
	11944	- 8	-15	21	48	1		11944	- 3	-17	22	97	2
	11944	- 7	-12	17	97	3		11944	- 2	-18	24	32	2
	11944	- 6	-14	19	61	1		11944	- 1	-17	22	73	1
	11944	- 5	-13	17	412	1		11944	0	-16	20	36	2
	11941	+ 7	-27	32	291	1		11944	+ 1	-16	20	48	1
	11955	+15	+26	26	24	1		11944	+ 2	-16	20	48	2
	11955	+18	+21	24	32	1		11944	+ 3	-16	21	48	2
	11955	+19	+24	27	32	1		11944	+ 4	-15	19	32	3
	11955	+22	+23	28	48	1		11944	+ 5	-14	19	85	2
	11937	+30	-15	35	36	2		11944	+ 8	-12	17	485	2
	11937	+35	-14	39	36	1		11941	+21	-27	37	255	1
	11937	+36	-13	39	24	1		11955	+26	+26	34	24	1
	11937	+39	-13	44	61	1		11955	+27	+25	34	24	1
	11937	+43	-12	45	194	1		11955	+29	+25	36	36	1
	11947	+37	+42	50	73	3		11955	+29	+26	36	24	1
	11947	+39	+38	50	32	2		11955	+30	+26	36	32	2
	11947	+45	+37	53	24	2		11955	+30	+21	34	48	2
	11947	+46	+37	54	194	1		11955	+31	+25	36	85	2
	11951	+45	-24	52	48	1		11955	+32	+22	36	24	2
	11930	+45	+21	47	388	1		11955	+33	+23	37	97	2
	11942	+61	-26	66	97	1		11952	+42	+23	44	24	1
	11942	+63	-25	68	32	2		11937	+48	-14	52	24	1
		(15)	(306)	(+4)	7201	88		11937	+53	-13	55	24	1
7.542	11958	-78	+16	78	436	1		11937	+54	-12	56	48	1
N-3	11958	-78	+18	78	291	2		11937	+55	-11	57	206	2
	11958	-71	+16	71	291	3		11947	+50	+42	59	61	2
	11953	-59	-22	64	194	2		11947	+60	+37	64	170	1
	11953	-56	-22	61	679	5		11930	+58	+21	59	339	1
	11953	-54	-25	60	339	3		11951	+59	-24	64	73	1
								11951	+60	-23	65	24	1

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U.T.	No.	Δl	φ	ρ	A	s	U.T.	No.	Δl	φ	ρ	A	s	
	11942	+74	-26	77	73	1		11958	-44	+15	45	24	2	
	(15)	(293)	(+4)		8992	128		11958	-44	+14	44	145	3	
8.678	11958	-63	+19	64	194	2		11958	-43	+15	44	73	3	
N-3	11958	-62	+16	62	242	3		11958	-40	+15	42	170	1	
	11958	-59	+17	59	121	1		11953	-30	-21	37	73	1	
	11958	-56	+15	56	145	4		11953	-29	-22	37	85	2	
	11958	-56	+18	57	24	1		11953	-26	-23	36	412	5	
	11958	-55	+16	55	194	3		11953	-25	-25	37	194	3	
	11953	-44	-20	49	145	3		11953	-23	-24	35	218	5	
	11953	-42	-23	49	73	1		11953	-21	-26	36	291	2	
	11953	-40	-21	46	436	4		11953	-18	-23	32	582	4	
	11953	-38	-24	46	170	2		11953	-16	-22	29	24	1	
	11953	-36	-23	44	242	9		11957	-12	+28	27	24	2	
	11953	-35	-26	45	170	3		11957	-11	+29	28	12	1	
	11953	-32	-22	39	485	3		11957	-4	+26	24	48	3	
	11953	-28	-24	39	12	1		11948	-6	+23	21	48	2	
	11957	-23	+28	33	73	1		11948	-4	+23	20	48	1	
	11957	-16	+27	28	121	5		11948	-3	+23	19	24	2	
	11957	-16	+26	27	36	1		11949	-5	-20	24	61	6	
	11948	-18	+24	26	85	4		11949	-4	-17	21	194	3	
	11948	-15	+24	25	97	3		11949	-1	-20	24	48	3	
	11949	-17	-19	29	97	5		11949	-1	-16	19	16	1	
	11949	-16	-17	26	339	3		11949	+2	-19	23	388	1	
	11949	-14	-19	27	436	2		11949	+2	-17	21	73	3	
	11949	-13	-16	24	145	6		11949	+3	-18	22	12	1	
	11949	-11	-16	23	121	1		11949	+4	-17	21	145	1	
	11946	-11	+30	28	61	1		11946	+1	+30	27	12	1	
	11946	-11	+29	27	61	2		11946	+2	+29	26	24	1	
	11946	-6	+26	24	145	5		11946	+3	+28	26	48	3	
	11946	-6	+28	25	194	5		11946	+4	+27	25	24	2	
	11946	-3	+28	25	267	3		11946	+5	+26	24	48	2	
	11946	-3	+26	23	36	1		11946	+6	+28	26	97	7	
	11944	+12	-17	25	97	4		11946	+6	+26	25	24	2	
	11944	+13	-17	25	97	3		11946	+9	+27	26	242	3	
	11944	+16	-16	26	121	3		11956	+13	-20	26	16	2	
	11944	+18	-15	26	32	1		11956	+14	-22	28	32	1	
	11944	+21	-12	26	24	2		11956	+16	-21	28	48	1	
	11944	+22	-16	29	48	1		11944	+26	-16	33	73	3	
	11944	+24	-12	28	485	3		11944	+27	-18	34	121	2	
	11941	+36	-28	47	242	1		11944	+28	-17	35	24	3	
	11955	+44	+26	48	145	2		11944	+36	-12	39	16	1	
	11955	+45	+24	48	73	2		11944	+38	-13	42	461	2	
	11955	+46	+26	50	24	1		11941	+47	-27	55	230	1	
	11955	+48	+24	51	73	3		11955	+55	+27	59	194	2	
	11955	+49	+21	52	73	4		11955	+56	+27	60	24	2	
	11955	+52	+22	54	121	2		11955	+56	+25	59	48	2	
	11937	+73	-12	74	291	1		11955	+60	+24	63	97	3	
	11930	+73	+21	73	388	1		11955	+64	+23	65	194	2	
	11951	+75	-25	77	36	1		11930	+88	+22	88	242	1	
	11947	+76	+36	77	242	1		(11)	(265)	(+3)		6336	121	
	(13)	(278)	(+4)		7579	124		10.809	11963	-80	-15	80	485	1
9.616	11958	-49	+15	51	194	2		N-2	11963	-75	-14	76	485	2
N-3	11958	-49	+17	51	170	3			11958	-34	+17	36	48	1
	11958	-47	+18	49	32	1			11958	-33	+18	36	145	2
	11958	-46	+16	47	145	3			11958	-33	+16	35	242	2
	11958	-45	+17	46	24	1			11958	-31	+17	34	97	3
									11958	-31	+15	33	97	4
									11958	-30	+16	33	242	3

NOVEMBER

U. T.	No.	Δl	φ	ρ	A	s	U. T.	No.	Δl	φ	ρ	A	s	
		$^{\circ}$	$^{\circ}$	$^{\circ}$					$^{\circ}$	$^{\circ}$	$^{\circ}$			
	11958	-29	+14	32	73	1		11958	-23	+18	27	121	3	
	11958	-28	+13	31	73	2		11958	-23	+16	26	194	1	
	11958	-26	+15	29	121	3		11958	-20	+15	23	73	1	
	11958	-23	+16	26	194	1		11958	-20	+17	25	242	4	
	11961	-26	-20	35	73	3		11958	-20	+14	23	48	2	
	11961	-24	-20	33	61	1		11958	-17	+14	21	12	1	
	11953	-16	-22	29	24	1		11958	-14	+16	19	24	3	
	11953	-15	-23	30	61	2		11958	-11	+16	16	170	1	
	11953	-14	-20	27	73	2		11961	-16	-21	28	48	2	
	11953	-14	-21	27	61	2		11961	-15	-20	27	16	1	
	11953	-13	-24	30	121	1		11961	-13	-19	26	24	1	
	11953	-13	-25	31	61	1		11961	-11	-20	25	73	2	
	11953	-12	-23	28	485	1		11961	-10	-20	25	73	1	
	11953	-10	-24	29	170	2		11953	-4	-21	24	48	4	
	11953	-7	-24	29	242	4		11953	-4	-24	27	16	3	
	11953	-6	-26	30	364	6		11953	-3	-22	25	97	3	
	11953	-4	-24	27	582	4		11953	-3	-24	28	145	4	
	11953	-3	-22	25	32	1		11953	0	-23	26	339	2	
	11953	-2	-22	25	48	1		11953	0	-24	27	48	2	
	11957	+5	+26	24	48	1		11953	+3	-24	28	242	1	
	11957	+7	+27	26	24	1		11953	+3	-23	26	97	2	
	11948	+6	+23	20	36	2		11953	+4	-24	28	145	6	
	11948	+7	+21	18	32	1		11953	+6	-26	29	194	6	
	11948	+9	+21	19	24	1		11953	+7	-23	26	218	4	
	11948	+10	+24	24	36	2		11953	+8	-24	29	315	1	
	11948	+10	+23	22	32	1		11948	+16	+24	26	73	5	
	11948	+12	+23	24	36	1		11948	+20	+22	26	32	1	
	11948	+13	+23	24	24	1		11957	+21	+25	30	24	2	
	11949	+9	-20	25	24	1		11957	+23	+24	30	16	2	
	11949	+10	-22	27	32	1		11957	+24	+22	30	16	1	
	11949	+12	-17	24	291	6		11949	+23	-17	31	133	2	
	11949	+14	-20	26	461	2		11949	+24	-17	32	61	3	
	11949	+14	-17	25	61	1		11949	+25	-19	34	485	3	
	11949	+16	-20	28	12	1		11949	+26	-16	33	32	2	
	11949	+16	-17	26	73	2		11949	+28	-17	34	109	1	
	11949	+18	-17	27	24	1		11949	+33	-17	38	97	1	
	11949	+20	-17	28	145	1		11946	+30	+29	38	48	2	
	11946	+19	+28	33	97	3		11946	+34	+29	41	24	1	
	11946	+20	+27	32	32	1		11946	+36	+33	44	36	1	
	11946	+23	+28	34	32	1		11946	+36	+29	43	242	2	
	11946	+25	+28	34	315	2		11956	+38	-20	44	73	1	
	11956	+26	-22	36	61	1		11956	+45	-19	49	32	1	
	11956	+34	-21	41	48	1		11944	+65	-15	67	97	2	
	11944	+41	-16	45	48	1		11944	+65	-13	66	485	3	
	11944	+42	-17	46	36	1		11944	+68	-13	70	61	2	
	11944	+43	-18	47	73	1		11941	+73	-27	77	194	1	
	11944	+44	-17	48	73	1		11955	+85	+29	85	145	1	
	11944	+52	-14	55	48	1								
	11944	+54	-14	57	533	1		(12)	(238)	(+3)		6591	111	
	11941	+63	-28	68	242	1								
	11955	+70	+26	70	242	1								
	(12)	(250)	(+3)		8055	101								
11,670	11963	-66	-16	68	461	3								
N-2	11963	-65	-15	67	194	2		12,793	11963	-51	-16	54	485	4
	11963	-63	-14	65	145	2		N-3	11963	-50	-12	53	24	1
	11963	-61	-13	64	170	1			11963	-49	-14	53	36	2
	11963	-58	-14	61	48	1			11963	-49	-11	52	97	2
	11958	-24	+17	27	36	1			11963	-48	-12	51	24	1
									11963	-47	-12	50	32	1
									11963	-46	-14	49	61	3
									11963	-45	-13	48	109	3
									11963	-42	-14	45	48	2
									11962	-45	+25	49	16	1

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U. T.	No.	Δl	φ	ρ	A	s	U. T.	No.	Δl	φ	ρ	A	s
	11958	- 8	+17	17	12	1		11958	+ 1	+17	15	12	1
	11958	- 7	+18	17	73	2		11958	+ 2	+18	15	16	1
	11958	- 6	+16	14	145	2		11958	+ 3	+16	14	109	1
	11958	- 5	+15	14	32	1		11958	+ 4	+18	15	85	4
	11958	- 5	+16	15	133	3		11958	+ 6	+16	15	73	5
	11958	- 4	+14	13	61	8		11958	+ 7	+15	15	73	4
	11958	- 3	+15	14	32	4		11958	+16	+15	20	182	1
	11958	- 2	+14	13	32	2		11966	- 3	-10	14	6	1
	11958	+ 6	+14	14	194	1		11966	0	- 9	14	6	1
	11966	-12	-10	17	12	1		11966	+ 2	- 9	14	61	3
	11966	-10	-10	16	36	2		11961	+ 9	-20	25	97	3
	11966	- 9	- 9	16	12	1		11961	+10	-21	25	24	1
	11965	- 4	-16	19	36	4		11961	+11	-18	24	48	1
	11961	- 2	-20	23	48	2		11961	+14	-21	27	12	1
	11961	- 1	-20	23	145	3		11961	+15	-19	27	16	2
	11961	+ 1	-18	22	24	2		11961	+17	-18	28	291	1
	11961	+ 2	-21	24	12	2		11953	+21	-22	33	121	6
	11961	+ 4	-21	24	32	1		11953	+22	-24	35	73	1
	11961	+ 6	-19	24	242	4		11953	+22	-23	34	36	3
	11953	+11	-23	27	48	2		11953	+23	-26	36	36	2
	11953	+12	-24	29	218	10		11953	+24	-22	34	339	2
	11953	+13	-25	31	32	2		11953	+25	-24	36	158	2
	11953	+14	-23	29	291	2		11953	+26	-25	37	32	2
	11953	+16	-24	32	194	5		11953	+26	-22	35	194	6
	11953	+16	-26	34	12	2		11953	+27	-23	36	194	2
	11953	+17	-24	33	291	6		11953	+30	-22	38	24	2
	11953	+17	-22	31	16	5		11953	+31	-23	39	32	1
	11953	+18	-26	34	24	2		11953	+31	-26	41	145	3
	11953	+20	-23	33	36	2		11953	+33	-24	42	267	1
	11953	+20	-26	35	145	3		11948	+38	+24	42	291	1
	11953	+21	-24	34	36	1		11948	+40	+26	45	24	1
	11953	+23	-24	35	242	2		11948	+40	+24	44	32	2
	11948	+30	+23	35	121	6		11948	+41	+22	44	73	1
	11948	+31	+25	36	36	2		11948	+43	+22	45	121	3
	11948	+33	+21	36	48	3		11948	+44	+23	46	61	2
	11948	+35	+21	37	97	1		11948	+45	+22	47	121	1
	11949	+38	-18	44	97	2		11949	+47	-17	52	73	1
	11949	+38	-17	43	24	3		11949	+49	-20	54	170	1
	11949	+39	-20	45	194	2		11949	+50	-19	55	170	1
	11949	+40	-19	46	182	2		11949	+67	-17	70	48	2
	11949	+47	-18	51	73	1		11946	+58	+28	62	339	1
	11946	+50	+27	54	242	2		11956	+63	-20	66	16	1
	11956	+53	-21	57	24	1							
	11956	+60	-20	64	24	1							
	11944	+80	-13	80	388	1							
	(12)	(223)	(+3)		5380	137							
								(9)	(213)	(+3)		5289	116

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U.T.	No.	Δl	φ	ρ	A	s	U.T.	No.	Δl	φ	ρ	A	s
		$^{\circ}$	$^{\circ}$	$^{\circ}$					$^{\circ}$	$^{\circ}$	$^{\circ}$		
	11958	+29	+16	32	145	1		11953	+56	-26	62	242	2
	11966	+13	-9	17	24	1		11953	+58	-24	63	218	2
	11966	+15	-9	19	16	1		11948	+61	+25	64	194	1
	11961	+21	-19	31	97	2		11948	+62	+24	65	73	2
	11961	+23	-18	31	48	1		11948	+73	+22	73	339	1
	11961	+25	-20	34	97	4		11949	+72	-20	75	194	1
	11961	+26	-18	34	16	1		11949	+74	-18	77	242	1
	11961	+26	-21	35	61	2		11946	+88	+30	88	194	1
	11961	+28	-17	35	12	1							
	11961	+30	-18	36	461	3		(11)	(187)	(+3)		6077	72
	11953	+35	-23	42	170	6							
	11953	+36	-22	43	267	2	16,567	11970	-67	+14	68	582	2
	11953	+39	-23	46	461	4	N-3	11969	-65	-17	67	36	1
	11953	+42	-23	48	97	3		11969	-64	-19	66	48	1
	11953	+45	-26	53	85	2		11969	-61	-18	64	24	1
	11953	+46	-24	53	291	1		11969	-58	-16	62	32	1
	11948	+50	+24	54	291	2		11963	-2	-15	18	291	4
	11948	+52	+26	56	24	1		11963	+1	-14	17	48	1
	11948	+53	+23	56	97	2		11963	+1	-16	19	16	1
	11948	+55	+23	57	32	1		11963	+3	-17	21	436	5
	11948	+57	+22	60	24	1		11963	+4	-13	16	727	15
	11948	+59	+22	61	145	1		11963	+5	-15	17	242	3
	11949	+60	-17	64	145	1		11963	+8	-12	16	121	6
	11949	+62	-19	65	170	1		11963	+9	-11	16	48	3
	11949	+63	-18	66	32	1		11963	+10	-14	20	73	3
	11946	+71	+29	71	291	1		11968	+3	-27	31	24	2
		(8)	(200)	(+3)		4959	83	11968	+4	-25	29	12	2
15,541	11970	-80	+14	80	630	1		11968	+6	-26	30	48	3
N-3	11963	-15	-15	24	242	1		11968	+8	-24	28	48	1
	11963	-14	-14	22	61	2		11968	+9	-25	29	12	1
	11963	-12	-16	23	73	5		11967	+16	+23	25	121	1
	11963	-11	-10	16	121	1		11967	+17	+23	26	32	2
	11963	-9	-16	21	121	1		11967	+20	+23	27	36	1
	11963	-9	-13	18	436	8		11967	+23	+21	28	145	3
	11963	-6	-12	16	24	2		11958	+44	+16	45	48	1
	11963	-5	-13	16	73	5		11958	+57	+16	59	242	1
	11968	-10	-25	30	16	1		11966	+44	-8	46	16	1
	11968	-9	-26	30	48	2		11971	+45	+27	49	36	3
	11968	-6	-26	30	24	1		11971	+50	+25	54	73	3
	11968	-5	-25	29	61	2		11961	+49	-19	54	73	1
	11968	-4	-25	29	16	1		11961	+50	-19	55	73	2
	11967	+4	+23	20	36	1		11961	+51	-20	56	73	1
	11967	+7	+21	18	61	1		11961	+52	-21	56	48	3
	11958	+29	+16	33	73	1		11961	+55	-17	59	121	3
	11958	+43	+16	44	194	1		11961	+59	-19	64	921	1
	11966	+29	-8	33	24	1		11953	+61	-21	65	170	4
	11961	+35	-18	41	218	4		11953	+63	-24	67	339	2
	11961	+36	-19	42	145	3		11953	+65	-23	69	630	4
	11961	+36	-16	40	24	1		11953	+66	-22	69	97	1
	11961	+39	-20	45	32	1		11953	+69	-25	73	145	1
	11961	+39	-19	45	48	1		11953	+71	-23	75	145	2
	11961	+41	-16	45	97	3		11948	+78	+26	78	145	1
	11961	+44	-17	48	679	2							
	11953	+47	-23	53	97	1		(11)	(174)	(+3)		6597	98
	11953	+49	-25	56	16	3	17,678	11974	-78	-23	79	630	5
	11953	+49	-22	55	291	1	M-2	11970	-51	+15	53	485	3
	11953	+52	-23	57	339	1		11970	-48	+17	51	32	1
	11953	+54	-23	59	61	2		11969	-50	-16	54	36	8
								11969	-48	-16	52	61	6

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U. T.	No.	Δl	φ	ρ	A	s	U. T.	No.	Δl	φ	ρ	A	s
		$^{\circ}$	$^{\circ}$	$^{\circ}$					$^{\circ}$	$^{\circ}$	$^{\circ}$		
	11969	-47	-16	51	24	1		11963	+32	-14	36	97	3
	11969	-45	-14	47	24	3		11963	+32	-18	37	16	1
	11969	-44	-15	46	32	1		11963	+33	-14	36	533	9
	11969	-42	-15	45	145	4		11963	+33	-21	39	24	2
	11963	+12	-13	18	16	2		11963	+34	-19	39	61	2
	11963	+13	-12	18	24	2		11963	+35	-15	38	218	6
	11963	+13	-13	19	48	2		11963	+35	-13	37	97	4
	11963	+14	-14	21	145	4		11963	+37	-13	40	145	4
	11963	+16	-16	24	364	5		11963	+38	-14	42	36	2
	11963	+18	-14	25	194	10		11968	+29	-26	39	12	1
	11963	+18	-11	23	218	6		11968	+31	-25	39	12	1
	11963	+20	-13	25	242	7		11968	+35	-25	44	12	1
	11963	+22	-15	26	194	4		11968	+36	-25	44	32	2
	11963	+23	-13	27	97	7		11968	+38	-25	45	24	1
	11963	+25	-12	28	16	6		11967	+42	+23	46	48	2
	11963	+26	-14	30	36	2		11967	+48	+20	51	48	1
	11968	+16	-25	31	16	1		11966	+66	-8	68	16	1
	11968	+22	-25	35	12	2		11966	+69	-8	70	16	1
	11968	+25	-25	36	24	3		11966	+70	-9	72	24	1
	11967	+32	+23	36	97	4		11966	+74	-8	75	36	2
	11967	+37	+21	42	16	3		11971	+70	+26	73	61	1
	11967	+38	+21	43	61	2		11958	+80	+15	80	145	1
	11966	+56	-9	57	16	1		11961	+85	-20	85	194	1
	11966	+57	-8	59	24	2							
	11966	+62	-8	63	48	2		(10)	(147)	(+2)		5720	108
	11958	+58	+15	60	16	1							
	11958	+73	+15	75	145	1	19,556	11974	-67	-26	71	436	1
	11971	+60	+27	64	48	1	N-4	11974	-66	-27	70	97	1
	11971	+62	+26	65	16	2		11974	-65	-25	69	145	2
	11971	+64	+26	66	24	1		11974	-58	-23	63	121	2
	11971	+66	+25	68	24	2		11974	-56	-23	60	12	1
	11971	+67	+24	69	36	2		11974	-55	-26	60	121	1
	11961	+64	-19	66	73	2		11974	-55	-24	59	73	1
	11961	+65	-21	67	36	1		11974	-51	-25	56	727	5
	11961	+69	-17	71	73	1		11976	-60	+35	65	48	1
	11961	+75	-20	76	873	1		11976	-55	+34	61	32	1
	11953	+78	-26	79	291	1		11978	-34	-16	37	24	1
	11953	+80	-24	80	727	4		11978	-33	-17	37	16	1
		(11)	(159)	(+2)	5759	129		11978	-32	-15	35	32	2
18,595	11974	-85	-26	85	291	2		11970	-27	+15	31	97	1
N-3	11974	-85	-28	85	242	1		11970	-26	+14	29	339	3
	11974	-78	-25	79	97	2		11970	-25	+15	28	12	1
	11974	-70	-24	73	145	2		11969	-26	-17	33	16	1
	11974	-70	-26	74	145	2		11969	-25	-19	33	12	2
	11974	-66	-25	70	727	7		11969	-24	-17	31	73	3
	11970	-40	+14	43	582	6		11969	-23	-16	29	61	3
	11969	-39	-19	45	32	2		11969	-20	-15	26	12	2
	11969	-37	-18	43	97	4		11969	-20	-16	27	12	2
	11969	-36	-17	41	24	1		11969	-18	-15	25	24	3
	11969	-30	-16	35	61	2		11969	-16	-15	24	267	6
	11969	-28	-16	34	194	2		11963	+37	-14	41	48	2
	11963	+25	-14	29	48	3		11963	+38	-15	42	97	2
	11963	+26	-15	31	48	3		11963	+38	-14	42	48	2
	11963	+27	-16	33	73	2		11963	+39	-15	43	97	4
	11963	+27	-14	32	61	2		11963	+40	-16	44	339	4
	11963	+28	-17	34	582	6		11963	+43	-11	44	48	2
	11963	+30	-15	35	73	2		11963	+43	-13	45	194	4
	11963	+31	-12	34	291	7		11963	+43	-15	46	73	3
								11963	+45	-16	47	61	3
								11963	+45	-13	46	582	10

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U. T.	No.	Δl	φ	ρ	A	s	U. T.	No.	Δl	φ	ρ	A	s
		$^{\circ}$	$^{\circ}$	$^{\circ}$					$^{\circ}$	$^{\circ}$	$^{\circ}$		
	11963	+47	-15	50	145	5		11969	+6	-17	21	36	2
	11963	+48	-14	51	16	3		11969	+11	-17	23	339	2
	11963	+50	-14	53	97	3		11969	+13	-18	24	194	1
	11968	+45	-26	51	48	2		11974	+50	+31	55	61	2
	11968	+49	-26	56	73	4		11963	+65	-18	68	170	2
	11968	+53	-25	58	24	1		11963	+65	-16	68	97	1
	11977	+46	-21	50	6	2		11963	+70	-15	73	970	4
	11977	+47	-19	52	24	2							
	11967	+55	+24	58	24	1		(7) (108) (+2)			3704	42	
	11967	+62	+21	64	32	1							
	(9) (134) (+2)				4885	107	22.577	11981	-75	+15	76	73	1
20,588	11974	-56	-26	62	194	1	N-2	11981	-73	+16	74	48	2
N-1	11974	-55	-28	61	73	1		11981	-71	+15	72	73	1
	11974	-52	-25	56	145	1		11974	-29	-26	39	73	1
	11974	-45	-24	51	145	2		11974	-29	-27	41	61	2
	11974	-44	-24	50	73	1		11974	-29	-29	43	48	3
	11974	-43	-26	49	97	1		11974	-27	-27	39	97	2
	11974	-41	-24	46	48	1		11974	-27	-28	41	32	1
	11974	-40	-26	47	194	1		11974	-21	-25	34	16	1
	11974	-37	-24	44	630	3		11974	-17	-24	32	36	1
	11976	-41	+35	50	32	1		11974	-16	-25	32	73	3
	11978	-21	-16	27	73	1		11974	-15	-26	32	73	2
	11978	-18	-15	25	48	1		11974	-14	-28	34	32	1
	11970	-14	+15	19	97	1		11974	-14	-26	32	145	4
	11970	-13	+14	17	291	2		11974	-10	-24	28	679	2
	11969	-8	-17	22	145	5		11976	-14	+35	35	12	1
	11969	-3	-17	20	242	3		11970	+13	+15	17	109	1
	11963	+53	-14	55	24	1		11970	+14	+14	18	182	3
	11963	+54	-15	56	121	2		11970	+14	+13	18	24	1
	11963	+54	-17	56	291	1		11970	+16	+16	21	16	1
	11963	+56	-11	57	48	1		11970	+17	+17	23	16	1
	11963	+59	-16	62	339	2		11969	+17	-18	26	73	2
	11963	+60	-14	63	630	4		11969	+19	-17	27	36	2
	11977	+56	-21	60	61	1		11969	+20	-18	28	97	2
	11977	+61	-20	64	73	1		11969	+24	-18	31	16	1
	11968	+58	-26	63	61	1		11969	+26	-17	33	291	2
	11968	+63	-25	66	73	1		11969	+27	-17	34	194	2
	(8) (121) (+2)				4248	41		11963	+80	-17	80	194	1
21,544	11974	-43	-27	50	170	2		11963	+85	-13	85	339	1
N-1	11974	-41	-29	49	73	2		(6) (94) (+2)			3158	48	
	11974	-39	-27	47	121	1	23.555	11981	-62	+14	63	73	1
	11974	-35	-25	43	73	2	N-2	11981	-60	+16	62	194	3
	11974	-32	-24	39	48	1		11981	-58	+15	60	97	1
	11974	-29	-24	38	73	1		11974	-16	-27	34	61	1
	11974	-28	-26	39	73	1		11974	-15	-28	34	194	4
	11974	-27	-26	38	145	1		11974	-14	-23	28	61	1
	11974	-24	-24	35	582	3		11974	-14	-25	30	36	1
	11976	-27	+34	41	36	2		11974	-5	-24	27	36	1
	11978	-8	-17	22	36	2		11974	-3	-24	26	85	2
	11978	-5	-15	18	16	2		11974	-2	-25	27	36	2
	11970	-2	+15	14	73	1		11974	-1	-26	28	145	3
	11970	0	+14	13	194	2		11974	0	-24	26	32	1
	11970	+1	+17	15	12	1		11974	+1	-25	26	73	1
	11970	+3	+15	14	16	1		11974	+4	-24	26	679	4
	11969	+4	-17	20	48	1		11970	+25	+15	28	158	2
	11969	+5	-16	19	48	2		11970	+26	+14	29	145	1
								11969	+32	-18	37	24	1
								11969	+33	-17	37	61	1

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U. T.	No.	Δl	φ	ρ	A	s	U. T.	No.	Δl	φ	ρ	A	s
		$^{\circ}$	$^{\circ}$	$^{\circ}$					$^{\circ}$	$^{\circ}$	$^{\circ}$		
	11969	+35	-18	39	61	1		11974	+29	-25	38	61	3
	11969	+39	-17	44	436	3		11974	+30	-26	39	32	2
	11969	+41	-17	45	242	2		11974	+31	-22	37	6	1
	(4)	(82)	(+2)		2929	37		11974	+33	-24	39	436	10
24.574	11981	-52	+15	54	48	2		11974	+33	-21	38	6	1
N-2	11981	-48	+16	51	36	1		11974	+34	-25	42	12	1
	11981	-45	+16	47	48	1		11970	+48	+18	51	24	2
	11981	-44	+15	45	32	1		11970	+50	+19	53	12	2
	11974	-2	-28	31	218	7		11970	+53	+17	55	12	2
	11974	+9	-23	26	73	1		11970	+54	+15	55	12	1
	11974	+12	-25	29	16	6		11970	+54	+16	56	12	2
	11974	+13	-23	28	61	2		11970	+55	+16	56	6	1
	11974	+14	-22	27	12	1		11970	+55	+14	56	24	2
	11974	+15	-24	29	97	3		11969	+61	-17	64	16	1
	11974	+16	-26	32	97	2		11969	+63	-17	65	12	1
	11974	+17	-24	32	630	4		11969	+65	-15	65	32	2
	11970	+39	+15	42	73	2		11969	+65	-17	66	12	3
	11970	+40	+15	43	12	1		11969	+70	-16	72	533	6
	11970	+40	+14	42	145	3		(8)	(54)	(+1)		2424	116
	11969	+46	-17	50	48	1	26.560	11985	-65	-18	67	97	1
	11969	+49	-17	53	32	1	N-1	11985	-63	-18	65	48	2
	11969	+49	-16	53	16	2		11985	-55	-16	57	24	1
	11969	+54	-16	56	582	3		11981	-28	+15	31	32	1
	(4)	(68)	(+2)		2276	44		11981	-26	+14	29	61	1
25.667	11985	-76	-16	77	194	3		11981	-24	+16	28	61	1
M-3	11985	-72	-16	74	48	1		11981	-21	+14	24	267	5
	11985	-70	-15	71	73	1		11981	-20	+16	25	24	1
	11985	-69	-15	70	32	1		11981	-17	+16	23	73	2
	11985	-67	-14	70	48	1		11981	-17	+14	21	61	2
	11984	-65	-21	67	16	2		11983	-7	-30	32	61	1
	11984	-61	-21	63	24	1		11983	-4	-29	31	24	1
	11984	-60	-22	63	24	2		11974	+40	-24	46	73	1
	11981	-39	+18	43	12	1		11974	+45	-24	50	679	3
	11981	-37	+17	41	97	5		11974	+48	-24	53	97	1
	11981	-37	+18	41	48	5		(4)	(42)	(+1)		1682	24
	11981	-36	+17	39	6	1	27.578	11990	-85	-13	85	194	1
	11981	-34	+17	37	73	4	N-3	11989	-74	+22	75	85	1
	11981	-34	+15	36	6	1		11989	-65	+22	66	6	1
	11981	-32	+16	35	16	2		11988	-56	+23	59	61	2
	11981	-32	+19	36	16	3		11988	-55	+20	56	48	2
	11981	-31	+17	34	73	5		11985	-50	-18	53	12	1
	11981	-29	+16	34	16	3		11985	-47	-17	51	16	1
	11981	-28	+17	33	12	1		11985	-46	-16	49	48	2
	11981	-27	+17	32	16	1		11985	-44	-16	47	16	1
	11983	-18	-28	34	73	2		11985	-43	-16	46	32	2
	11983	-16	-27	33	16	2		11985	-42	-16	45	32	2
	11983	-15	-26	32	24	2		11987	-36	+19	39	6	1
	11982	-4	-33	35	12	1		11981	-13	+15	18	48	3
	11974	+11	-28	32	24	2		11981	-13	+14	17	36	2
	11974	+11	-26	29	16	2		11981	-11	+16	17	36	3
	11974	+11	-27	31	12	1		11981	-8	+16	17	12	1
	11974	+12	-29	33	24	4		11981	-8	+15	16	73	4
	11974	+24	-26	36	16	3		11981	-7	+15	16	145	4
	11974	+25	-25	35	12	1		11981	-6	+16	16	16	1
	11974	+25	-24	35	12	3		11981	-5	+15	15	36	2
	11974	+26	-23	35	73	6		11981	-4	+15	15	24	1

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U.T.	No.	Δl	φ	ρ	A	s	U.T.	No.	Δl	φ	ρ	A	s
		$^{\circ}$	$^{\circ}$	$^{\circ}$					$^{\circ}$	$^{\circ}$	$^{\circ}$		
	11981	-3	+14	14	32	2		11988	-31	+21	35	48	1
	11981	-2	+14	14	24	1		11988	-31	+23	36	339	2
	11983	+5	-29	32	36	1		11988	-30	+24	36	36	1
	11983	+10	-28	32	6	1		11988	-27	+20	33	73	3
	11974	+36	-29	46	16	1		11988	-26	+22	33	73	2
	11974	+38	-28	46	32	2		11988	-26	+20	32	85	2
	11974	+39	-26	46	24	2		11988	-25	+22	32	48	2
	11974	+51	-25	55	6	1		11988	-24	+20	30	218	3
	11974	+55	-25	59	12	1		11987	-16	+21	25	24	1
	11974	+55	-24	59	12	2		11987	-15	+20	24	36	1
	11974	+57	-24	61	776	7		11985	-19	-18	27	61	1
	11974	+58	-23	62	12	1		11985	-16	-16	24	24	1
	11974	+62	-24	65	242	3		11985	-14	-17	24	16	1
	11970	+78	+17	78	73	2		11986	-2	-27	28	61	1
	(9)	(29)	(+1)		2285	65		11986	+4	-24	26	48	1
28,540	11990	-75	-13	76	97	2		11981	+16	+16	22	32	2
N-3	11990	-68	-14	70	339	4		11981	+20	+15	24	170	1
	11991	-73	-26	76	170	1		11981	+24	+15	28	36	1
	11993	-60	+22	62	32	1		11983	+33	-29	44	48	1
	11988	-45	+23	49	194	5		11983	+34	-30	45	32	1
	11988	-44	+21	47	48	3		11983	+36	-29	46	97	2
	11988	-42	+23	46	32	3		11974	+72	-25	75	145	1
	11988	-39	+21	43	48	1		(10)	(2)	(+1)		2307	39
	11988	-39	+20	43	121	2	30,589	11996	-68	-19	71	36	1
	11985	-33	-17	37	32	1	N-3	11990	-48	-14	51	48	1
	11985	-32	-16	36	16	2		11990	-44	-14	45	24	3
	11985	-31	-17	35	16	1		11990	-43	-16	46	145	1
	11985	-29	-16	34	24	2		11990	-39	-13	42	24	2
	11984	-22	-22	32	6	1		11990	-39	-15	43	24	1
	11986	-15	-26	32	48	1		11993	-47	+24	51	133	1
	11986	-15	-25	30	16	1		11993	-46	+23	49	24	1
	11986	-14	-26	30	12	1		11993	-42	+23	46	16	1
	11986	-13	-24	28	36	2		11993	-41	+23	45	194	2
	11981	-1	+15	14	16	1		11991	-47	-26	53	73	1
	11981	0	+15	14	24	3		11988	-18	+23	27	242	6
	11981	0	+14	14	24	1		11988	-17	+25	29	24	1
	11981	+1	+16	15	73	2		11988	-16	+22	25	121	3
	11981	+4	+15	15	24	2		11988	-13	+19	22	24	2
	11981	+5	+15	15	145	2		11988	-12	+21	22	97	4
	11981	+6	+16	16	48	1		11988	-10	+22	23	24	1
	11981	+7	+15	16	36	1		11988	-9	+21	22	36	1
	11981	+8	+16	17	24	1		11988	-8	+22	22	121	1
	11981	+9	+15	16	16	2		11999	-8	+15	16	48	1
	11983	+17	-29	35	24	1		11999	-7	+14	15	12	1
	11992	+49	-29	56	24	1		11999	-6	+14	15	36	3
	11974	+53	-24	57	170	2		11985	-8	-18	22	12	1
	11974	+67	-26	70	145	1		11985	-8	-17	21	12	1
	11974	+68	-24	71	727	3		11985	-6	-17	19	16	1
	11974	+73	-24	76	242	1		11987	-2	+20	18	16	1
	(11)	(16)	(+1)		3049	59		11984	+3	-22	24	24	1
29,618	11990	-61	-14	63	97	1		11997	+5	+19	18	24	1
N-1	11990	-55	-14	56	242	2		11986	+14	-25	29	16	1
	11991	-60	-27	64	73	1		11986	+15	-24	29	24	1
	11993	-59	+24	61	32	1		11981	+33	+16	36	73	2
	11993	-55	+25	58	16	1		11981	+36	+16	38	16	1
	11993	-54	+24	57	97	1		11983	+45	-27	52	12	1
								11983	+47	-28	54	16	1
								(13)	(349)	(+1)		1787	52

Mean for 30 days, $A = 4696$, $r = 190.9$